

Claims

1. Apparatus for coupling an ultrasound clamp-on measuring head to be attached to a tube wall, characterized in that a coupling plate (2) arranged between the tube wall (3) and measuring head (1) is configured such that the isotherms (7) of the temperature profile that occurs in the tube wall area run parallel to said tube wall (3) and in said measuring head area runs perpendicular to the path length and the transition area has only a slight expansion.
2. Apparatus in accordance with claim 1, characterized in that said coupling plate (2) has a largely rectangular structure and the side facing said tube wall (3) for limiting the heat added to said coupling plate (2) has a step that comprises an area (4) acting for acoustic coupling with direct contact to said tube wall (3) and an offset area that is not in direct contact with said tube wall.
3. Apparatus in accordance with claims 1 and 2, characterized in that the rectangular area of said coupling plate (2) projects into a largely trapezoidal area in the direction of the acoustic radiation for coupling to said measuring head (1).
4. Apparatus in accordance with one or more of claims 1 through 3, characterized in that said coupling plate (2) has a thickness such that the temperature is approximately the same at all plate depths.
5. Apparatus in accordance with claim 4, characterized in that the thickness of said coupling plate (2) is substantially smaller than its width and height.